

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

UNITED STATES, *et al.*,

Plaintiffs,

vs.

GOOGLE LLC,

Defendant.

No. 1:23-cv-00108-LMB-JFA

**GOOGLE LLC’S CORRECTED MEMORANDUM ADDRESSING
THE LEGAL FRAMEWORK APPLICABLE TO REMEDIES**

I. INTRODUCTION

The Supreme Court’s guidance “when it comes to fashioning an antitrust remedy” is that “caution is key.”¹ *NCAA v. Alston*, 594 U.S. 69, 106 (2021); *cf. United States v. Google LLC* (“*Search*”), 2025 WL 2523010, at *2, *31 (D.D.C. Sept. 2, 2025) (“courts must approach the task of crafting remedies with a healthy dose of humility” given that “caution is key”). Consistent with this principle, courts have generally understood that “equitable relief in an antitrust case should not embody harsh measures when less severe ones will do.” *New York v. Microsoft Corp.* (“*Microsoft IP*”), 224 F. Supp. 2d 76, 100 (D.D.C. 2002), *aff’d sub nom. Massachusetts v. Microsoft Corp.* (“*Microsoft III*”), 373 F.3d 1199 (D.C. Cir. 2004) (en banc). Divestiture is the harshest of remedies, described by courts as “most drastic,” “radical,” “extreme,” and “severe.” And no court has ever used divestiture to deny a defendant the ability to continue to compete in a market found

¹ With respect to quoted material, unless otherwise indicated, all brackets, ellipses, footnote call numbers, internal quotations, and citations have been omitted for readability. All emphasis is added unless otherwise indicated.

by the court. Divestiture has instead been reserved for cases that stem from an unlawful corporate combination or acquisition. Ordering divestiture in this case, where the Court found lawful acquisitions but an unlawful tie in markets in which Google competes, would be an unprecedented and erroneous imposition of this “radical” and “extreme” remedy.

Google proposes remedies that are “tailored to fit the wrong creating the occasion for the remedy.” *United States v. Microsoft* (“*Microsoft I*”), 253 F.3d 34, 107 (D.C. Cir. 2001). At the May 2 hearing, Plaintiffs acknowledged that Google’s initial remedies proposal “would absolutely address our concern about the prior illegal conduct.” ECF No. 1432 at 35:8-21. That proposal went further than enjoining conduct found anticompetitive, including proposing to build brand new connections to give ad server competitors access to Google’s “incredible trove” of advertiser demand, *id.* at 9:9-10:1. Since then, Google has gone further, building out its proposed remedy, where consistent with the Court’s liability ruling and antitrust remedy principles, to address concerns open-web publishers and Plaintiffs’ experts identified in remedies discovery. For example, Google’s proposal further severs the connection between AdX and DFP by giving publishers the choice to put Prebid, an industry consortium, right in between AdX and DFP. Google’s remedy is thorough, workable, subject to effective oversight, and addresses concerns about circumvention. And it is sufficient to achieve the goal of antitrust remedies: to restore the competitive conditions that would have existed absent the conduct the Court found anticompetitive, in which “any number of competitors may flourish (or not) based upon the merits of their offerings.” *Microsoft III*, 373 F.3d at 1231.

Plaintiffs, by contrast, ask this Court to abandon caution: ignore Supreme Court guidance and legal precedent, go far beyond the bounds of the Court’s liability opinion, and invite disruption and damage—both predictable and unpredictable—to consumers and competition in a rapidly

changing technology ecosystem. Despite having long insisted that tools that transact open-web display advertising are their own distinct markets, Plaintiffs propose divestiture of AdX and DFP in their entirety. This would divest tools that also transact other ad formats (such as Connected TV, or “CTV”; streaming video; and in-app)—formats that were already increasing in popularity at the time Plaintiffs brought this case and have been transforming the consumption of display ads since. Plaintiffs also seek behavioral remedies hobbling the ability of Google’s buying tools, AdWords and DV360, to innovate even though these tools operate outside of the markets that the Court found.

Plaintiffs are asking the Court to impose their severe, counterproductive, and unprecedented remedy based on the say-so of experts, none of whom have performed meaningful work to analyze Plaintiffs’ proposals. Multiple of Plaintiffs’ experts admit to having reached opinions about divestiture of AdX and DFP based on publicly available materials instead of evidence in this case, including without looking at the source code underlying AdX and DFP. The one technical expert who did review code did not review enough code to have an opinion on whether divestiture would succeed or how long it would take. Plaintiffs’ non-technical experts have simply assumed that an unprecedented divestiture of exceedingly complex technological tools would work. Nor have Plaintiffs’ experts been able to authoritatively explain the details of Plaintiffs’ remedies, including what functionalities or assets would be divested; how the remedies would be implemented in practice; how long accomplishing the remedies would take; how disruption to customers and the ecosystem would be avoided; or whether, if there are delays or challenges, the remedies will benefit consumers, competition, or the open web.

The evidence shows that Plaintiffs’ remedies would harm publishers, advertisers, and Internet users, with additional unintended consequences such as accelerating the downfall of open-

web display advertising. For example, in contrast to Plaintiffs’ experts, Google’s computer science expert, Prof. Jason Nieh, studied the AdX and DFP source code, the Google-wide infrastructure underlying AdX and DFP, and how those systems work together today. He will demonstrate that, like the proposed divestiture of Google Chrome in the *Search* case earlier this year, divestiture of either AdX or DFP is uncertain to succeed; would require tearing AdX or DFP from the Google infrastructure that currently makes them high-performing for millions of customers and hundreds of billions of ad requests a day; and, even if it could be successful (which is unclear), would create an imitation of the existing functionality that performs worse at higher cost. In *Search*, the district court heard testimony from Prof. Nieh about the analogous workability problems posed by the proposed Google Chrome divestiture. Citing Prof. Nieh extensively, the *Search* court concluded that a Chrome divestiture would be “incredibly messy and highly risky,” leaving the court “highly skeptical” that, even if it could succeed, “divestiture would not come at the expense of substantial product degradation and a loss of consumer welfare.” *Search*, 2025 WL 2523010, at *56.

The same critical problems exist here, but Plaintiffs have treated them as annoyances to be resolved by the Court or a trustee (or both) at a later date. But it is the Court’s responsibility to balance harms, or “substantial risk of harm,” that would be caused by proposed remedies. *Search*, 2025 WL 2523010, at *58. The time to do this is now, before consequences are irrevocable and tools relied upon by millions of consumers are broken.

Finally, while Plaintiffs continue to advance essentially the same divestiture remedies they noticed in their complaint filed in January 2023, ECF No. 1 ¶ 342(6), the world has continued to turn. Plaintiffs put forth remedies as if trial, the Court’s liability decision, and remedies discovery never happened—and also as if the incredibly dynamic ad tech ecosystem had stood still while these judicial proceedings continued. But the changes have been many: AI is reshaping ad tech at

every level; non-open web display ad formats like Connected TV and retail media are exploding in popularity; and Google's competitors are directing their investments to these new growth areas. The fact is that today, open-web display advertising is already in rapid decline and Plaintiffs' divestiture proposal would only accelerate that decline, harming publishers who currently rely on open-web display advertising revenue. As the law makes clear, the last thing a court should do is intervene to reshape an industry that is already in the midst of being reshaped by market forces.

II. ARGUMENT

A. Google's Proposed Remedies Would Address the Conduct the Court Found Anticompetitive and Restore Competition.

Google's proposal both directly remedies the conduct that the Court found anticompetitive and goes beyond simply enjoining that conduct. As confirmed by the testimony of witnesses in both stages of this case, Google's proposal will ensure conditions exist to restore competition and publisher choice in the ways publishers want. *See, e.g., Microsoft III*, 373 F.3d at 1231 (the antitrust remedy should "restore conditions in which the competitive process is revived and any number of competitors may flourish (or not) based upon the merits of their offerings," not "provide aid to a particular competitor").

To address the AdX-DFP tie found by the Court, ECF No. 1410 ("Op.") at 90-98, Google proposes to break the tie and provide AdX's "unique advertising demand" to Google's rivals, *id.* at 92. Google proposes that publishers contract independently with Google for AdX and DFP. Proposed Order ¶ III.2(b). And Google proposes to remove the "technical and policy restrictions" that the Court found "prohibited publishers from receiving real-time bids from AdX (the tying product) unless they also used DFP (the tied product)," Op. at 91. Proposed Order ¶¶ III.1(a)-(b); III.2(b). Google proposes to enable publishers to use rival publisher ad servers to access real-time bids from AdX for open-web display ads, including by using Prebid, Proposed Order ¶¶ III.1(a)-

(b); and deprecate and not enter any policies that would restrict publishers' ability to use a rival ad server to access real-time bids from AdX, *id.* ¶ III.2.

In remedies discovery, Plaintiffs' witnesses voiced concerns that Google could circumvent a remedy that merely precluded the particular conduct the Court found created an AdX-DFP tie. Google would not circumvent the Court's order, but Google has nevertheless added to its proposal additional provisions to address these concerns: Google will charge the same AdX revenue share regardless of how a publisher accesses AdX (*i.e.*, whether through DFP or a rival), Proposed Order ¶ III.1(c); and provide publishers with data to facilitate switching from DFP to a rival ad server, *id.* ¶¶ III.1(d)-(e). In addition, Google proposes a Monitoring Trustee to oversee compliance, including receiving complaints or inquiries about Google's compliance, with the Court's order. *Id.* ¶ IV.

To address the Court's findings that specific anticompetitive policies enabled Google to entrench its monopoly power in the relevant markets, Google proposes that it will not reimplement First Look or Last Look and will deprecate the Unified Pricing Rules. Proposed Order ¶¶ III.3, III.4. Again, Google is adding to its proposal a provision to prevent circumvention of the remedy: Google will not provide a discount on DFP fees in exchange for a publisher's agreement to set uniform prices across all demand sources. *Id.* ¶ III.4(b).

And Google is not stopping there. Plaintiffs' witnesses also want the option to put Prebid between DFP and AdX, which Google is now proposing. As the Court heard at the liability stage, Prebid is a consortium of "non-Google industry members and open-source advocates" who introduced a header bidding solution that has had "widespread adoption by large publishers" since 2015. *Op.* at 33. Google proposes to create new connections between both AdX and Prebid, Proposed Order ¶ III.1(b), and DFP and Prebid, *id.* ¶¶ III.3(a)-(b). (Those additions correspond to

elements of Plaintiffs’ previously proposed phased divestitures of AdX and of DFP. ECF No. 1483-1 at 9-10.) The combined effect of Google’s added proposals will be to give publishers the choice to use AdX with Prebid and not DFP; DFP with Prebid and not AdX; or even AdX and DFP together, but with Prebid sitting in between.

Plaintiffs have argued that Google’s proposal would not restore competition in the ad exchange market. ECF No. 1435 at 11. But Google’s remedy *does* do this, in multiple, mutually reinforcing ways. To begin with, Google proposes eliminating UPR. This one act would reduce the AdX take rate from 20% to approximately 16%, a rate comparable to what is charged by six of AdX’s competitors. PTX-1199B; 9/18/24 PM Tr. 16:23-17:11, 32:16-20 (testimony of Plaintiffs’ liability expert Dr. Simcoe). Advertiser and publisher multi-homing on exchanges is already extremely common and will make it easier for rival exchanges to gain share after Google’s proposal is implemented. In addition, weakening Google in DFP, which will lose market power as AdX opens up its advertiser base to rival publisher ad servers, will reduce Google’s power in both AdX and DFP. Op. at 81 (finding that Google’s power in AdX and DFP has been “mutually reinforcing”). Google’s proposals further prevent Google from “us[ing] its power in the products’ two adjacent markets” (AdX and DFP) “to harm competition,” Op. at 90—including from using any market position in DFP to harm competition among ad exchanges. To be clear: under Google’s proposals, publishers will be able to choose whether they want to put Prebid, made up of Google’s rivals, right in the middle of DFP and AdX, which will foreclose any means for Google to use DFP to favor AdX, or vice versa.

B. Plaintiffs’ Remedy Proposal Pursues Improper Goals Rejected By Antitrust Law.

Google appreciates that courts are not limited to enjoining just the specific acts found unlawful. The goal of antitrust remedies is “to restore competition” so that firms can compete on

the merits. *United States v. E.I. du Pont de Nemours & Co.*, 366 U.S. 316, 326 (1961). But Plaintiffs would have the Court go much further and order divestiture and other remedies to achieve their proposed goals, which are rejected by antitrust law.

Courts have repeatedly recognized that antitrust remedies are *not* license for courts to enjoin any future violation of the antitrust laws. *Microsoft III*, 373 F.3d at 1215-16 (“the remedy” must not be “so unduly regulatory or provide a blanket prohibition on all future anticompetitive conduct”). Put another way, the “mere existence of an exclusionary act does not itself justify full feasible relief against the monopolist to create maximum competition.” *Microsoft I*, 253 F.3d at 106; *see also United States v. Microsoft Corp.*, 56 F.3d 1448, 1460 (D.C. Cir. 1995) (“the court is not at liberty to enjoin ‘all future violations of the antitrust laws, however unrelated to violations found by the court’” (quoting *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 132-33 (1969))).

Nor is the goal of denying a defendant the “fruits of its violations”—which Plaintiffs have repeatedly cited in defense of their proposals, *e.g.*, ECF No. 1435 at 14—license to force a defendant to divest its product and exit the market. *Microsoft III*, 373 F.3d at 1232. In *Microsoft III*, the D.C. Circuit reviewed the cases Plaintiffs now cite and explained that “the fruits of a violation must be identified before they can be denied.” *Id.* The court found that the “fruits of [Microsoft’s] statutory violations” were its “freedom from the possibility rivals” “would pose a threat to its monopoly.” *Id.* at 1233. The proper means to address such “fruits” is to “pry open” the channels of competition, which the court did by “denying Microsoft the ability to take the same or similar actions to limit competition in the future” through behavioral remedies that would “open the way” to increased competition. *Id.* at 1232-33; *see also Search*, 2025 WL 2523010, at *40-*46, *52, *57 (ordering behavioral remedies to address the “fruits” of Google’s conduct in that

case, which were freedom from threats of competition, scale, and revenue); *Microsoft II*, 224 F. Supp. 2d at 108 (“the language regarding relinquishment of illegally obtained fruits” does “not mandate a divestiture of the defendant’s assets or a structural division of the defendant”). And Google’s proposal does just that, including for issues of scale, by not just enjoining anticompetitive conduct, but creating entirely new channels for rivals to compete and gain scale through integrations between DFP and Prebid and integrations between AdX and both Prebid and rival publisher ad servers.

Finally, “courts are not authorized in civil proceedings to punish antitrust violators, and relief must not be punitive.” *E.I. du Pont*, 366 U.S. at 326; *Hartford-Empire Co. v. United States*, 323 U.S. 386, 409 (1945) (a court “may not impose penalties in the guise of preventing future violations”); *Search*, 2025 WL 2523010, at *31 (“the ends of equity are ill-served by punishing the monopolist for past transgressions”); Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law* § 653c2 (Supp. May 2025) (“punishment has little or no place in equity jurisprudence, generally or under the antitrust laws”).

C. Plaintiffs’ Remedy Proposal Would Have This Court Go Beyond Legal Precedent and Its Liability Findings.

Divestiture in the form of completely removing a competitor from a market is unknown in any case. But when courts have awarded even a partial divestiture, there was an unlawful combination, such as a merger, acquisition, acquisition of stock, or joint ownership scheme, that was the source of the defendant’s monopoly power. *E.g.*, *E.I. du Pont*, 366 U.S. at 329 (divestiture, the “most drastic” of remedies, “has traditionally been the remedy for Sherman Act violations whose heart is intercorporate combination and control”); *Microsoft I*, 253 F.3d at 105 (“By and large, cases upon which plaintiffs rely in arguing for the split of Microsoft have involved the dissolution of entities formed by mergers and acquisitions.”). In the cases Plaintiffs and Google

have located, divestiture has *never* been awarded in a case like this one where the gravamen of the violation is an unlawful tie. In Plaintiffs' cases, an *unlawful* combination was at the heart of the anticompetitive conduct. *E.g.*, *United States v. Grinnell Corp.*, 384 U.S. 563, 566-68 (1966) (combination of "central station companies"); *Int'l Boxing Club of N.Y., Inc. v. United States*, 358 U.S. 242, 245-48 (1959) (combination of and conspiracy among boxing promoters); *United States v. Paramount Pictures*, 334 U.S. 131, 168-70 (1948) (acquisition of theatres by movie studios); *Schine Chain Theatres v. United States*, 334 U.S. 110, 113-16 (1948) (acquisition of theaters by parent company); *United States v. Crescent Amusement Co.*, 323 U.S. 173, 179 (1944) (consortium of theatre companies "combining with each other"); *United States v. American Tobacco Co.*, 221 U.S. 106, 143-44, 181-82 (1911) (combination of tobacco companies).

There was no unlawful acquisition or combination in this case. The Court found that the challenged acquisitions were not anticompetitive. *Op.* at 87 ("The Court finds that Plaintiffs have failed to show that the DoubleClick and Admeld acquisitions were anticompetitive"). Nonetheless, Plaintiffs have continued to seek the same divestiture remedies that they sought pre-trial, before their challenges to the DoubleClick and Admeld acquisitions failed.

What is more, Plaintiffs' proposal violates the Supreme Court's instruction that remedies should enjoin only the "same type or class as unlawful acts which the court has found to have been committed or whose commission in the future unless enjoined, may fairly be anticipated from the defendant's conduct in the past." *Zenith*, 395 U.S. at 132; *accord Search*, 2025 WL 2523010, at *30. Because there is no tool that only transacts open-web display ads, requiring divestiture of AdX and DFP would go far beyond the type of conduct the Court found unlawful, extending remedies to forms of advertising outside of the markets found by the Court, including advertising in apps and on Connected TV and native ads.

In addition, Plaintiffs propose behavioral remedies that regulate Google’s buying tools—AdWords and DV360—even though Plaintiffs failed to prove a market in which AdWords competes and did not even allege a market in which DV360 competes. The Court did not find that either buying tool operated in a monopolized market, possessed monopoly power, or engaged in any anticompetitive conduct. To the contrary, the Court found Google competes with the likes of Meta and TikTok and rejected Plaintiffs’ proposed buy-side market because advertisers have significant choice among other tools that are substitutes for both large and small advertisers given the “ease and benefits” for advertisers of “allocating advertising spending across channels” beyond AdWords or DV360. Op. at 54, 59, 60 n.22. Nonetheless, Plaintiffs’ proposed behavioral remedies would directly constrain AdWords and DV360 in competing with social media buying tools like Meta’s and TikTok’s, buying tools for in-app display ads, and other competitors outside of Plaintiffs’ failed buying tools market.

After strenuously insisting that their case is limited to open-web display advertising and failing to prove their proposed buy-side market, Plaintiffs cannot now demand that the Court use the remedies phase to regulate in this way. *Microsoft II*, 224 F. Supp. 2d at 133 (“Intervention into a market outside of and unrelated to the monopoly market is not justified merely because Microsoft has begun to compete in the new market and such competition is feared”).

Plaintiffs further invite this Court to commit legal error by asking the Court to prohibit Google from competing in the markets the Court found by requiring Google to divest AdX and DFP and not re-enter the ad exchange and publisher ad server markets for open-web display. No case endorses such a draconian remedy; if anything, the case law stands for the opposite. As the *Microsoft* court concluded after reviewing the same Supreme Court cases that Plaintiffs rely upon, “*nothing* in these two cases *indicates that an antitrust violator should be subject to an outright*

denial of the ability to continue to do business and to compete with other participants in the market and in other markets.” *Microsoft II*, 224 F. Supp. 2d at 108. Even Plaintiffs’ cited cases ordering divestiture to undo acquisitions and mergers or split up companies provide no support for removing a firm from a relevant market in which it was previously competing.² And that makes sense: the purpose of an antitrust remedy is to encourage competition, not to take a competitor off the field.

D. Divestiture Will Cause Both Predictable and Unpredictable Harms to Competition and Consumers.

When courts devise antitrust remedies, they must carefully assess and weigh any potential harms to competition and consumers. *Search*, 2025 WL 2523010, at *60 (courts “must consider the harms that might befall other market actors”). It is Plaintiffs who have the “heavy burden to warrant the radical structural remedy of a forced divestiture.” *Id.* at *57.

“Divestiture has often performed poorly as an antitrust remedy for monopolistic practices because it requires the removal of assets that had been important to operating efficiency. Divesting physical assets produces effects that can be both harmful and difficult to foresee.” Areeda & Hovenkamp § 653i; *see also Microsoft I*, 253 F.3d at 80 (“divestiture is a remedy that is imposed with great caution, in part because its long term efficacy is rarely certain”). As courts recognize, “a corporation, designed to operate effectively as a single entity, cannot be dismembered of parts of its various operations without a marked loss of efficiency.” *Microsoft I*, 253 F.3d at 106. Antitrust experts have concluded that divestiture has frequently “failed to improve competition or consumer welfare.” Herbert Hovenkamp, *Antitrust and Platform Monopoly*, 130 Yale L.J. 1952,

² Plaintiffs cite a single case, *Ford Motor Co. v. United States*, as support for eliminating a defendant from the market, ECF No. 1435 at 7, but there the defendant, Ford, was enjoined only from using its brand name in a manufacturing market in which it was the major customer, it had *never* competed prior to the unlawful acquisition, and entering the market would have taken five to eight years. 405 U.S. at 562, 565, 576-78.

2016 & n. 281 (2021) (“Too often, well-intended divestitures or structural separations end up doing precisely the opposite” of increasing output and benefiting consumers).

And even beyond the predictable harms of divestiture, courts must also “be wary about invitations to set sail on a sea of doubt.” *Alston*, 594 U.S. at 107. Even if the Court “cannot predict to any degree of certainty” whether additional harms would arise, if “the risk” of unpredictable consequences “is far from small,” that “is reason enough not to proceed with the remedy.” *Search*, 2025 WL 2523010, at *60. Each of Plaintiffs’ requested divestitures, of AdX and of DFP, must be rejected because they will wreak both predictable and unpredictable damage on consumers and competition—damage that is “far from small” and should therefore be “reason enough not to proceed.”

Unworkability, especially when the products at issue include complex software. “One apparent reason why courts have not ordered the dissolution of unitary companies is logistical difficulty.” *Microsoft I*, 253 F.3d at 106. Plaintiffs’ proposed divestitures of AdX and DFP are rife with difficulty. Or, in the words of the *Search* court that rejected divestiture of Google Chrome, another product similarly intertwined with Google infrastructure, divestiture would be “incredibly messy and highly risky.” *Search*, 2025 WL 2523010, at *56. “There would be nothing ‘natural’ about” an AdX or DFP “divestiture.” *Id.*

To start, Plaintiffs are proposing divestiture of two sets of functionalities that are currently unified, down to the source code, in one product—Google Ad Manager—yet during discovery have not identified which functionalities of the existing, unitary product would be divested as “AdX” and which as “DFP.” Nor has any expert been able to say whether divestiture is to include such components as employees, customers, IP, assets and liabilities, or Google technical assistance (either in quantity or duration).

And even assuming some more specific process for divestiture were devised, the evidence will show that a technical divestiture would require undertaking the unprecedented technological project of ripping “AdX” and “DFP” out of Google’s core infrastructure, which has supported AdX and DFP for over a decade with bespoke functionality, and rebuilding them to function in a new, foreign environment. Similar concerns plagued the proposed Google Chrome divestiture, where, to reject divestiture, the *Search* court cited to Prof. Nieh’s testimony that “re-creating the Google infrastructure” for a divested Chrome “would be hard, if not impossible.” *Search*, 2025 WL 2523010, at *56. As Prof. Nieh will explain, the technical work required to divest either AdX or DFP would be uncertain to work and take at the very minimum, even in a best-case scenario, five years to complete. Moreover, in the process of divestiture, publisher customers who have made significant investments into their publisher ad server set-ups would inevitably experience disruption from migrating to a new, divested version of the product; face uncertainty about the outcome of divestiture; and have their publisher revenue put at risk.

Plaintiffs’ experts have no answer to these problems. The only expert Plaintiffs put forth to give an opinion about a timeframe for technical divestiture, Dr. Bjedov, has not reviewed the technology or source code underlying AdX and DFP and, perhaps as a result, is vague and inconsistent about the details of execution and unable to answer fundamental questions about how divestiture would work. Plaintiffs’ other technical expert, Prof. Weissman, has explained that he has not reviewed enough information to state whether divesting AdX or DFP would require a major migration, much less how long it would take or whether it would be successful. A third non-technical expert, Mr. Crisci, testified that he reached conclusions about whether buyers would be interested in a divested AdX or DFP based solely on publicly-available documents. And Plaintiffs’ economic expert, Prof. Lee, simply assumed away as outside the scope of his opinions

any challenges in the divestiture process.

Plaintiffs’ “solution” has been to punt questions to the Court or a trustee to figure out after it has already ordered divestiture. The supervision required of the Court for Plaintiffs’ structural remedies would therefore be magnitudes larger than that required by Google’s proposed remedies. All ongoing court supervision poses risks, but courts are particularly ill-suited to superintending the terms and conditions of forced technical sharing in rapidly evolving markets. *Novell, Inc. v. Microsoft Corp.*, 731 F.3d 1064, 1073 (10th Cir. 2013) (Gorsuch, J.) (judges “lack many comparative advantages” as “central planners,” which is “a role in which we haven’t always excelled in the past). Nor are courts equipped to “oversee product design” by judicial fiat, such as by making decisions about how products newly created for the purposes of divestiture should function and be provided to a buyer. *United States v. Microsoft*, 147 F.3d 935, 952 (D.C. Cir. 1998) (“antitrust scholars have long recognized the undesirability of having courts oversee product design,” and “courts are ill equipped to evaluate the benefits of high-tech product design”); *Search*, 2025 WL 2523010, at *90 (“A compelled product design is not an appropriate use of the court’s equitable powers”).

Here, Plaintiffs refuse to grapple with, and seek to defer confronting, the hardship created by the sheer unworkability of divestiture. But courts are required, *before* they craft antitrust remedies, to “balance the benefit to competition against the hardship or competitive disadvantage the remedy may cause.” *Ginsburg v. InBev NV/SA*, 623 F.3d 1229, 1235-36 (8th Cir. 2010) (rejecting the “extreme remedy of divestiture”); *Search*, 2025 WL 2523010, at *61 (“Courts must exercise care to ensure that the cost of correcting the market failure does not exceed the anticompetitive injury visited on consumers”). Even the “hardship,” harms, and risks that would be wrought by just embarking on the unknown years of an undefined and uncertain divestiture

process weigh against divestiture.

Harms to open-web display advertising. In the face of this significant hardship and uncertainty accompanying divestiture, Plaintiffs fail to acknowledge (let alone take into account) the reality that the world has moved significantly away from open-web display. In January 2025, only 11% of display advertising impressions purchased by AdWords advertisers were for open-web display (for comparison, down from over 40% in January 2019). Plaintiffs are fighting for a remedy that would vanquish a past that has been overtaken by technological and market transformations in the way digital ads are consumed.

Even just since the liability trial, the display ad industry has been transformed by significant disruptions that will only proliferate: AI is reshaping every level of display advertising, from ad buying to ad selling to creating entirely new kinds of enormously popular publishers, such as AI chatbots, who can monetize their display content. For example, Meta has launched AI tools with the aim of “fully automat[ing] ad creation using AI”³; sell-side providers like Index Exchange have integrated with AI to power ad curation⁴; and immensely popular generative AI products like Perplexity that “changed the course” of the *Search* case, *Search*, 2025 WL 2523010, at *2, *18-*20, have started monetizing through ads.⁵ As the Court will hear from Plaintiffs’ own witnesses, AI will cause “new disruptions into the market on a weekly basis,” creating a “wild-west scenario” that will be very difficult to predict.

³ Meghan Bobrowsky & Patrick Coffee, *Meta Aims To Fully Automate Ad Creation Using AI*, The Wall Street Journal (June 2, 2025), <https://tinyurl.com/3ud3zpyw>.

⁴ Marty Swant, *AI Briefing: Index Exchange and Cognitiv Integrate To Use Generative AI for Programmatic Curation*, Digiday (Nov. 18, 2024), <https://tinyurl.com/4vurnxw4>.

⁵ Krystal Scanlon & Sara Guaglione, *Perplexity Has Offered Ads for Half a Year—Marketers Already Want Scale*, Digiday (May 28, 2025), <https://tinyurl.com/558vzvw5>.

Google’s ad tech provider competitors, many of whom are major household names, have also uniformly directed their investments and focus to the most rapidly growing ad formats—not open-web display. Connected TV advertising via providers like Netflix and Disney is now “the fastest-growing advertising channel in the U.S.”⁶ And retail media advertising has experienced enormous investments by “retailers of all sizes,”⁷ with \$60 billion expected to be spent in 2025.⁸ For example, Amazon invested in its demand-side platform, in particular through partnerships with TV providers, “to clobber rivals The Trade Desk and Google in a key area of advertising”⁹; The Trade Desk worked with Spotify, a digital audio platform, to launch a Spotify ad exchange¹⁰; and Magnite partnered with Samsung Ads to support Samsung’s TV advertising¹¹ and with Netflix to support Netflix’s new, in-house ad suite.¹²

All of this and more has happened in the past year. As The Washington Post Editorial Page put it earlier this week, “reshaping a market that’s already being reshaped is a formidable

⁶ Sara Fischer, *Exclusive: The Trade Desk Is Building a CTV Operating System Called Ventura*, Axios (Nov. 20, 2024), <https://tinyurl.com/mr27k4sh>.

⁷ Lauren Johnson, *PayPal Formally Launches Ad Business To Pitch Its Shopping Data to Advertisers*, AdWeek (Oct. 10, 2024), <https://tinyurl.com/3u5ewa3u>.

⁸ Lauren Johnson, *Advertisers Can Now See If Amazon’s Streaming Ads Drive Sales at Walmart and Target*, Adweek (Jan. 8, 2025), <https://tinyurl.com/2fcfnbtm>.

⁹ Lara O’Reilly, *Inside Amazon’s Plan to Clobber Rivals The Trade Desk and Google in a Key Area of Advertising*, Business Insider (Aug. 28, 2025), <https://tinyurl.com/5m9y63ud>.

¹⁰ Sara Fischer, *Scoop: Spotify Launching an Ad Exchange, Will Partner with Trade Desk*, Axios (Oct. 22, 2024), <https://tinyurl.com/4y4a62wv>.

¹¹ Saleah Blancaflor, *Samsung Ads and Magnite Expand Partnership To Better Target Streaming Ads*, Adweek (Apr. 9, 2025), <https://tinyurl.com/5n7cx7t9>.

¹² James Hercher, *Meet the Netflix Ads Suite, Introduced by Ads VP Nicolle Pangis*, AdExchanger (Mar. 18, 2025), <https://tinyurl.com/3wescv5t>.

challenge.”¹³ At a time like this, when the market is being reshaped by technological and market forces driving spend away from open-web display, courts should be especially cautious not to jeopardize the already-precarious open-web display advertising revenue stream that is “essential” for a set of web-focused publishers like “news, media, and other online publishers’ businesses,” “such as The New York Times or The Wall Street Journal,” Op. at 47.

The divestitures of AdX and DFP would risk accelerating the ongoing shift in spending away from open-web display inventory. Plaintiffs propose to require Google to divest its ad exchange and publisher ad server for open-web display advertising. But they acknowledge—as they must—that Google could continue operating an ad exchange and a publisher ad server for any other ad format.¹⁴ The outcome would be to incentivize Google to shift the resources it invests in serving open-web publishers to serving publishers who prioritize other formats, like app and CTV, as well as its non-open web properties such as YouTube. And divestiture will also eliminate the efficiencies of integration within Google’s ad tech stack, so that Google’s advertiser customers are likely to see a further decline in their return on investment from open-web display ads. Advertisers will vote with their feet and accelerate the existing trend of shifting spend to non-open web display ad formats. Automated AI-powered tools seeking greatest ROI will make that shift in spend even faster. In short, Plaintiffs’ remedies will harm publishers—particularly smaller publishers reliant on open-web display who have not diversified to other ad formats—by accelerating the decline of open-web display advertising.

Worse products and reduced customer choice. Divestiture of either AdX or DFP would

¹³ Editorial Board, *The Google Problem Was Never Permanent*, Washington Post (Sept. 2, 2025), <https://tinyurl.com/3rbzd9sm>.

¹⁴ Plaintiffs’ experts, Prof. Robin Lee and Mr. Paul Crisci, agree that Plaintiffs’ proposed remedies would still allow Google to operate an ad exchange and an ad server for any ad format other than indirect open-web display, including in-app, CTV, and native.

also create the perverse outcome of reducing customer choice by removing a unique, quality product from the market and replacing it with an inferior one. AdX and DFP are deeply integrated into—and dependent upon—Google’s core infrastructure to operate efficiently at the scale they do while providing best-in-class product features such as low latency, fast and comprehensive reporting, accurate and reliable billing, ad security, user privacy, scanning ad creatives for inappropriate content, and more. *Search*, 2025 WL 2523010, at *56 (Google products are “deeply reliant on Google’s hyperscale technical systems and infrastructure,” quoting Prof. Nieh’s testimony that “Google’s underlying infrastructure is an ‘engineering marvel’”). Google’s core infrastructure also enables Google to offer DFP for free to over 90% of publisher customers, and for very low prices to even paying customers.

Like Chrome, without Google’s infrastructure, AdX and DFP “would be a shell of the product that it is today.” *Id.* Just as with the proposed Chrome divestiture, ripping AdX or DFP from Google’s core infrastructure and Google’s integrated ad tech stack will result in a worse product at a greater cost. *Id.* (citing to Prof. Nieh, “Even if, as Plaintiffs suggest, these dependencies” on Google’s infrastructure “could somehow be re-created or made available to a new owner—and that is a big ‘if’—the court is highly skeptical that a Chrome divestiture would not come at the expense of substantial product degradation and a loss of consumer welfare”).

And even though the goal of antitrust law is to increase consumer benefit, Plaintiffs’ technical experts have revealed in discovery that their opinions do not assume the divested products need to be up to Google’s current standards of performance and quality. Plaintiffs have built their remedies case upon the idea that a unique and effective product that millions of customers rely upon may as well be replaced with a worse product (that may already exist in the market). That is antithetical to “a traditional objective of the antitrust laws,” which is to “enhance

consumer choice.” *United States v. Brown Univ.*, 5 F.3d 658, 675 (3d Cir. 1993) (citing *NCAA v. Board of Regents of University of Oklahoma*, 468 U.S. 85, 102 (1984)).

Decreased innovation. Plaintiffs’ proposed divestiture would further worsen AdX and DFP by diverting resources from continued innovation for years—all while the market is rapidly changing due to AI and other technological forces. Thus, not only would the divested product not perform at the same level, it would also fall behind in product investment during the period of divestiture. That is precisely the outcome that courts must avoid: “any dampening of technological innovation would be at cross-purposes with antitrust law.” *Microsoft II*, 224 F. Supp. 2d at 158; *see also Search*, 2025 WL 2523010, at *31 (“The Court must be sensitive to remedies that risk substantially stifling technological innovation”). Decreasing innovation is particularly damaging in an evolving technology market like ad tech, where “imposing a remedy in this case is not unlike trying to shoe a galloping horse.” *Microsoft II*, 224 F. Supp. 2d at 184. In five years, “the market will have long since sent the horse to pasture in favor of more advanced technology,” in a future that is “beyond the capacity of this Court, counsel, or any witness” to predict today. *Id.* And, “in the computer industry,” “six years seems like an eternity.” *Microsoft I*, 253 F.3d at 49.

Interference with the competitive process. Plaintiffs’ remedies would “shield [Google’s] competitors from the rigors of the marketplace.” *Microsoft II*, 224 F. Supp. 2d at 185. Courts must avoid “interfering with ordinary and legitimate commercial practices” to benefit competitors. *Id.* at 137. Plaintiffs’ approach to eliminate Google as a competitor in certain markets would remove Google as a source of competitive pressure in those markets, and inhibit ordinary competition.

E. The Significant Causal Connection Between the Challenged Conduct and Google’s Monopoly Power—the Predicate for a Divestiture Remedy—Has Not Been Established.

As the D.C. Circuit held, “structural relief, which is designed to eliminate the monopoly

altogether, requires a clearer indication of a significant causal connection between the conduct and creation or maintenance of the market power. Absent such causation, the antitrust defendant's unlawful behavior should be remedied by an injunction against continuation of that conduct.” *Microsoft I*, 253 F.3d at 106; *see also* Areeda & Hovenkamp § 653b (“More extensive equitable relief, particularly remedies such as divestiture,” “raise more serious questions and require a clearer indication of causal connection.”); *Search*, 2025 WL 2523010, at *35 (“The standard of causation applied must be commensurate with the nature of the relief sought: The more drastic the remedy, the greater the causal connection required to support it”).

To apply this standard, it is “the court’s task is to discern between conduct that maintains a monopoly through anticompetitive acts as distinct from ‘growth or development as a consequence of a superior product, business acumen, or historic accident.’” *Search*, 2025 WL 2523010, at *55-*56 (quoting *Grinnell*, 384 U.S. at 570-71). And it is Plaintiffs who bear the burden to satisfy the “clearer indication of a significant causal connection test for structural remedies.” *Id.* For example, the D.C. Circuit reversed the district court’s award of divestiture in *Microsoft* because the district court had not found the requisite “significant causal connection” between the anticompetitive behavior and Microsoft’s monopoly power. *Microsoft I*, 253 F.3d at 107. On remand, the district court applied the D.C. Circuit’s instruction that “the court crafting a remedy must assess the strength of the causation evidence that established liability and ‘tailor’ the relief accordingly.” *Microsoft II*, 224 F. Supp. 2d at 102. In *Search*, using the same standard, the district court rejected the proposed Chrome divestiture because “after two complete trials, this court cannot find that Google’s market dominance is sufficiently attributable to its illegal conduct to justify divestiture.” *Search*, 2025 WL 2523010, at *55.

To argue they have met the causation standard in this case, Plaintiffs assert that the only

causal showing required is “a nexus between assets of the monopolist and the conduct found to be illegal.” ECF No. 1435 at 7. That test is found nowhere in the case law,¹⁵ directly contradicts other courts, and makes no sense because it would be meaningless. In every monopolization case, there is by definition a “nexus” between the monopolized product “and the conduct found to be illegal.”

Under the correct, “significant causal connection” standard articulated by courts, Plaintiffs have failed to show the requisite causation because, as the Court’s liability findings reflect and the evidence will show, Google’s acquisition of power in the relevant markets is attributed to reasons unrelated to the conduct this Court found to be anticompetitive. *Search*, 2025 WL 2523010, at *55 (no significant causal connection to justify divestiture where there was “ample evidence that lawful conduct played an important role in Google’s maintenance of its monopoly”).

Even if it were true that the conduct the Court did find anticompetitive “significantly contributed to maintaining [Google’s] monopoly power,” there is insufficient evidence of causal connection to justify divestiture because other factors such as “best-in-class” “quality, consistent innovations, investment in human capital, strategic foresight, and brand recognition” have also contributed to Google’s success. *Id.* For both AdX and DFP, as even Plaintiffs’ own witnesses will testify, Google’s products are “valuable” because they offer customers a rich set of features that Google has innovated for those products and that offer customers differentiating value

¹⁵ The cases Plaintiffs cite in their support of their standard stand only for a different proposition, consistent with the weight of case law discussed above, that divestiture may be appropriate where the “destruction or absorption of competitors” via unlawful combination is the gravamen of the violation. *Crescent Amusement*, 323 U.S. at 186 (justifying divestiture because “the acquisition of a competing theatre terminates at once its competition”); *see, e.g., Paramount*, 334 U.S. at 152 (justifying divestiture of assets used in a “conspiracy to eliminate or suppress competition” via unlawful acquisitions and joint ownership). Again, there has been no unlawful merger, acquisition, or other combination in this case.

propositions that have nothing to do with anticompetitive conduct. As to DFP in particular, Google’s willingness to make significant investments in its publisher ad server and the requisite technology infrastructure, *see* Op. at 49 (investments required to build an ad server), while maintaining low prices has contributed to DFP’s usage apart from any anticompetitive conduct.

Plaintiffs’ earlier submission also argued that Google’s remedy fails to address that a “primary source” of Google’s power in the ad exchange market was its “array of advertising demand.” ECF No. 1435 at 11-12. Plaintiffs omit that Google’s “powerful source of digital advertising demand” resulted from Google’s significant (and lawful) investments in competing for advertiser business. Op. at 28-29. Google cultivated an advertiser customer base by offering a product, AdWords, that excelled in “ease of use” and ability to place targeted advertisements, which in turn has attracted publishers. *Id.* at 29.¹⁶ Given the lawful nature by which Google acquired its advertising demand, there is no causal connection, let alone a “significant causal connection.”

Moreover, the Court’s finding that AdX is a two-sided platform, *id.* at 63, 81, is fatal to establishing causation and to Plaintiffs’ proposal to divest AdX based on arguments about AdWords demand. Again, Google’s power on an entire half of the ad exchange market—the advertiser half—is in no way connected to any anticompetitive findings by the Court; it obviously fails to meet the “significant causal connection” standard set forth in *Microsoft*. “Because the record does not support the requisite heightened causal connection, ‘wisdom counsels against

¹⁶ In particular, the Court found that the dominance of Search has contributed “in large part” to Google’s ability “to amass” an “unparalleled group of mostly small and medium-sized advertisers,” an advertiser base that has in turn “bolstered” Google’s market power in the ad exchange market. Op. at 96. As the *Search* court concluded, Google’s monopoly position in Search does not bear sufficient causal connection to anticompetitive conduct to justify divestiture. *Search*, 2025 WL 2523010, at *55 (finding that Google’s lawful innovations played an “important role” in its Search market power).

adopting radical structural relief.”” *Search*, 2025 WL 2523010, at *55 (quoting *Microsoft I*, 253 F.3d at 80).

CONCLUSION

For the foregoing reasons, and because there is no reason to invite irrevocable damage, product degradation, and consumer harm when there exists a remedy that will enjoin the specific acts the Court found anticompetitive, maintain quality products for consumers, and restore competition moving forward, the Court should enter Google’s Proposed Order reflecting the appropriate remedies.

Dated: September 5, 2025

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